Appl. No. 09/975,663
Attorney Doc. #: 67,200-465

REMARKS/ARGUMENTS

Thorough examination and careful review of the application by the Examiner is noted and appreciated.

The examiner has rejected claims 1, 3-8, 10, 11, 13, and 14.

Claims 1, 6, and 11 have been amended.

Claims 1, 3-8, 10, 11, 13, and 14 remain in this application.

Accordingly, upon entry of this Response, Claims 1, 3-8, 10, 11, 13, and 14 are pending.

The changes in the claims do not introduce new matter but clarify matters shown and described in the application as filed. The foregoing amendments and following remarks are believed to be fully responsive to the Office Action mailed September 23, 2003 and render all currently pending claims at issue patentably distinct over the references cited by the Examiner. The foregoing amendments are taken in the interest of expediting prosecution and there is no intention of surrendering any range of equivalents to which Applicant would otherwise be entitled in view of the prior art. Reconsideration and examination of this application is respectfully requested in light of the foregoing amendments and the following remarks.

EXAMINER'S OFFICE ACTION

In the September 23, 2003 Office Action referenced above, the Examiner:

rejected claims 1, 3-8, 10, 11, 13, and 14 under 35 USC §112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements;

rejected Claims 1 and 5 under 35 USC §102(b) as being anticipated by U.S. Patent No. 5,160,109 issued to Farrell et al. (hereinafter "FARRELL"); and

rejected Claims 3, 4, 6-8, 10, 11, 13, and 14 under 35 USC §103(a) as being obvious over FARRELL in view of U.S. Patent No. 6,247,769 issued to Spitzer et al. (hereinafter "SPITZER").

35 U.S.C. §112

In the Office Action, claims 1, 3-8, 10, 11, 13, and 14 stand rejected under 35 USC §112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements.

The Examiner cited the omitted elements as: the structure that supports the applicant['s] assertion that the "rack are electrically grounded" and that the cells are "electrically connected to the racks". Additionally, Examiner asked what grounds the rack and what connects the cells to the racks.

Accordingly, Claims 1, 6, and 11 of the pending application have been amended to clearly define structural features of the invention including tracks that are electrically grounded, racks that have wheels and that are grounded by having wheels connect to the tracks, and cells that are made of metal and electrically connected to the racks by placing the cells on shelves of the racks.

It is well known in the electrical arts that for an object to be electrically connected, there needs to be an electrical source, and an electrical path to ground. In the present invention, the electrically shielded cells 16 are placed on the shelves 16 which are attached to the rack as shown in FIG. 2 and as described in the Pending Application, ¶ 31, 35. The rack 14

and shelves 16 are metal and therefore, the cells that are placed on the rack are electrically joined or connected to the shelves and therefore are further electrically connected to the rack 14 and to ground 28. Additionally, the rack 14 has wheels which connect to the fixedly secured and grounded tracks 20 to ground the rack.

In light of amendments to Claims 1, 6, and 11, Examiner's rejections based on 35 USC §112, second paragraph have been obviated.

Rejections under 35 U.S.C. §102

In the Office Action, the claims 1 and 5 stand rejected under 35 U.S.C. §102(b) as being anticipated by FARRELL.

The rejections of claims 1 and 5 based on FARRELL are respectfully traversed.

FARRELL teaches a shiftable storage system having ranges 14, a complex module control system 36 having monitors mounted to the top of the ranges, safety bars 40 (FIG. 1) which extend along corresponding sides of each range 14 at two different heights, and are linked to electrical switches 42 (FIG. 2) connected in the module control system 36. See FARRELL, col. 6, lines 7-11, col. 18, lines 57-61. FARRELL further teaches that electrical motor and gearing may be provided to move each movable range, open and close access aisles if a switch is coupled to the motor to operate the system. See FARRELL, col. 4, lines 47-50; col. 11, lines 19-25. FARRELL teaches mounting of electric motors to each rack 14 as described in NAITO patents 4,033,649 (NAITO '649) and 4,412,772 (NAITO '772). See FARRELL, col. 6, lines 37-42.

More particularly, the NAITO '649 and '772 patents teach that the motor be mounted to the side of a range 14 and coupled

to the complex control system for grounding the control system. See generally NAITO '649 and '772.

"As shown in FIG. 2 on the side wall of the shiftable stack unit 203 is provided a control board 210 which has a power source switch 216 and a special operation switch 217 at the center . . . ." NAITO '772, col. 3, lines 34-37.

NAITO '649 uses switches, relays, and contacts connected to terminals of a power source to ground the electric motors mounted to the NAITO article storing device. See NAITO, FIG. 4, col. 5, lines 42-49. "Thus, an automatic cut-off circuit is formed in part, by the timer 76, relays 68, 77 and associated contacts in order to automatically disconnect the motor circuit formed, inter alia, by the electromagnetic switch 65 and relay contacts 66s',67t,68s' from the conductors 62, 64 of the power supply." NAITO, col. 8, lines 20-25.

The NAITO'772 patent uses a grounding relay 310 to ground the shiftable stack unit. See NAITO '772, FIG. 14, col. 6, lines 30-33.

The present invention provides reticle storing movable rack system according to amended claim 1 features, inter alia, tracks that are electrically grounded, racks that have wheels and are grounded by having wheels connect to the tracks, and cells that are made of metal and electrically connected to the racks by placing the cells on shelves of the racks.

The Office action asserts that "it is inherent that the metal shelving system would be grounded. This is because this is a system that supports electrical equipment and it is required by the Nat. Electrical Code that all electrical systems and equipment be properly grounded."

Unlike the present invention, the FARRELL reference lacks an electrical connection between what it is intended to hold (files or books) and the ground through cells, shelving and racks (ranges 14 in the FARRELL reference). The system disclosed in the FARRELL is intended to store "various things such as files or books" (FARRELL, col. 5, line 38) whereas the present invention stores boxes of reticles which are susceptible to electrostatic discharge and thus must be properly discharged through the cells which hold the reticles. Thus, unlike the present invention, FARRELL fails to teach or disclose any motivation to ground the shelves or partitions that hold the contents of the FARRELL range 14.

Applicant maintains that the FARRELL reference does not seem to suggest the presence of the above-mentioned structural limitation of the applicant's invention in the form of the electrical connection.

Examiner cites FARRELL, col. 11, lines 25-32, in the "Response to Arguments" section of the Office action to support the assertion that it is inherent that each of the racks must be grounded because FARRELL mounts electric motors to each rack 14. However, while FARRELL does teach mounting of electric motors to each rack 14 as described in NAITO patents 4,033,649 and 4,412,772. See FARRELL, col. 6, lines 37-42, both the NAITO '649 and '772 references show electric motors mounted **to a side wall of a rack** 14.

Additionally, a complex control system is used in both the NAITO '649 and '772 references to ground the motors used in both references. Unlike the present invention, neither of the NAITO

references teach grounding of cells placed within the shelving units of the racks to ground the motors.

Neither the FARRELL nor the NAITO references teach or suggest grounding the **entire rack** to ground. Even if both references inherently taught grounding of the rack, the inherency would only extend to **a portion of the rack** to which the electrical components and motors are mounted in the FARRELL or the NAITO references, i.e., the outer side wall of the rack to which the motor is mounted, and to a top portion of the rack to which to which monitors of the FARRELL reference are mounted.

Thus, the motors of the FARRELL and NAITO references are mounted to an outside portion of the entire mobile storage system, a side wall, **not inside the rack** or storage unit.

Additionally, FARRELL teaches away from mounting such motors or control systems inside of the rack:

> "Another object of the invention is to provide for such aisle safety without interfering with normal usage of the storage system, and/or without requiring a person to set or activate any controls, and/or **so as not to take up space on those areas of the storage elements** to which other components, controls, et. are typically mounted." FARRELL, col. 2, lines 50-55.

Thus, if a motor or control system were mounted inside of the shelf, the electrical equipment would interfere with the storage capacity of the mobile storage unit.

As explained, supra, the rack of the FARRELL and NAITO references is only part of the mobile storage system and the electrical equipment and **does not** operate to electrically connect the inside portion of the rack between the partitions to ground.

Thus, contrary to the Office action assertion, **it is not inherent that an interior portion of the racks be grounded.**

The mobile storage unit of the present invention is grounded by having an electrical connection with the plurality of flat tracks fixedly secured to the floor as shown in FIG. 1c. Unlike the present invention, FARRELL fails to teach or suggest that the tracks are electrically connected to the racks 14 and that that are grounded.

Additionally, the vertical partitions 18 of the FARRELL reference which are an integral unit extending from a top wall of the FARRELL rack 14 to a bottom wall of the FARRELL rack 14 are not the same as the cells 18 dividing each of the shelves 16 of the present invention. The cells 18 are not solid partitions extending from bottom of mobile storage unit to top of mobile storage unit, but instead **are placed inside each shelf** as shown in FIG. 2 and disclosed in Pending Application, ¶ 31, 35.

Thus, FARRELL fails to teach the cells of the present invention that are adapted to hold boxes of reticles.

With further regard to Independent claim 1, claim 1 has been amended to further define the present invention. Independent Claim 1 **consists essentially of:**

> "a plurality of flat tracks fixedly secured to a floor, **each of said flat tracks being grounded,**
>
> a plurality of storage units, each of said storage units comprising a plurality of racks **having wheels** adapted to be moved along flat tracks of said plurality of flat tracks, each of said racks being electrically grounded **when said rack wheels contact said flat tracks of said plurality of flat tracks**, and

an operator engageable drive assist mechanism to move said racks,

wherein each of said racks comprises a plurality of shelves with plurality of cells for housing reticles therein, said cells having electrostatic shielding properties, said electrostatic shielding properties being secured by making said cells metallic and electrically connecting them to said racks **by placing said cells on each of said plurality of shelves.**"

The "consisting essentially of" language as used in claim 1 expressly excludes the electrical equipment and safety bar 40 as disclosed in the FARRELL reference. As discussed supra, the electrical equipment is mounted to both the top and side of the FARRELL rack, and the safety bar 40 of the FARRELL reference is mounted to the side of the rack 14 and is coupled to switches in communication with the control system to turn on and off the control system. The present invention does not require such a limitation because no electrical equipment is mounted to or is required by the present invention to perform the function of the present invention: to house boxes of reticles.

According to MPEP § 706.02, anticipation under 35 U.S.C. §102 requires that "the reference must teach every aspect of the claimed invention either explicitly or impliedly. Any feature not directly taught must be inherently present." Here, the FARRELL reference fails. The FARRELL reference does not disclose, teach, or suggest tracks that are electrically grounded, racks that have wheels and that are grounded by having wheels connect to the tracks, and cells that are made of metal

and electrically connected to the racks by placing the cells on shelves of the racks.

Independent Claim 1 has been amended to advance prosecution, thereby, rendering the rejection of those claims, and rejection of the claims which depend from claim 1 respectively, under 35 U.S.C. 102(b) moot.

Rejections under 35 U.S.C. §103

In the Office Action, Claims 3, 4, 6-8, 10, 11, 13, and 14 stand rejected under 35 USC §103(a) as being obvious over FARRELL in view of SPITZER.

The rejections of 3, 4, 6-8, 10, 11, 13, and 14 based on FARRELL in view of SPITZER are respectfully traversed.

The SPITZER disclosure shows no concern whatsoever about electrostatic properties of shiftable article storage device described and claimed in the FARRELL patent. Therefore, there is no motivation for FARRELL to modify their device for it to acquire those properties.

The arguments for novelty of claims 1, 6 and 11, as amended, over FARRELL do not differ from those in the above used in defense of claim 1, as amended: the FARRELL patent does not disclose or teach tracks that are electrically grounded, racks that have wheels and that are grounded by having wheels connect to the tracks, and cells that are made of metal and electrically connected to the racks by placing the cells on shelves of the racks. Adding SPITZER does not affect those arguments since SPITZER as well does not disclose or teach electrically grounded racks and metal cells electrically connected to the racks.

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Thus, the present invention, as set forth in the now amended claims 1, 6, and 11, the claims which depend from claims 1, 6, and 11 respectively are clearly distinct from the art of record.

The foregoing amendments further clarified some of the features of the reticle storing movable rack system of the present invention. It is believed that the present invention as amended is novel and non-obvious over the reference relied upon by the examiner.

Additionally, as discussed previously, because the reference cited and relied upon by Examiner does not disclose, teach or suggest all of the features alone or in combination of the claimed invention, the 102 and 103 rejections are believed to be obviated.

Based on the above, it is respectfully submitted that the amended claims 1, 3-8, 10, 11, 13, and 14 are in condition for allowance, which allowance is earnestly solicited. With respect to the remaining claims, all of which depend from claims 1, 6, and 11, the fact that they claim additional elements or limitations also renders them allowable over FARRELL and SPITZER, which allowance is earnestly solicited.

Based on the foregoing, the Applicant respectfully submits that all of the pending claims, i.e. claims 1, 3-8, 10, 11, 13, and 14 are now in condition for allowance. Such favorable action by the Examiner at an early date is respectfully solicited.

If for some reason Applicant has not requested a sufficient extension and/or have not paid a sufficient fee for this response and/or for the extension necessary to prevent the abandonment of this application, please consider this as a request for an extension for the required time period and/or

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authorization to charge our Deposit Account No. 50-0484 for any fee which may be due.

In the event that the present invention is not in a condition for allowance for any other reasons, the Examiner is respectfully invited to call the Applicant's representative at his Bloomfield Hills, Michigan office at (248) 540-4040 such that necessary action may be taken to place the application in a condition for allowance.

Respectfully submitted,

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